



**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

**[Docket No. FAA-2021-0878; Project Identifier MCAI-2020-01460-G; Amendment 39-21884; AD 2021-26-25]**

**RIN 2120-AA64**

**Airworthiness Directives; Schempp-Hirth Flugzeugbau GmbH Gliders**

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Final rule.

**SUMMARY:** The FAA is adopting a new airworthiness directive (AD) for certain Schempp-Hirth Flugzeugbau GmbH Model Duo Discus and Duo Discus T gliders. This AD was prompted by mandatory continuing airworthiness information (MCAI) originated by an aviation authority of another country to identify and correct an unsafe condition on an aviation product. The MCAI describes the unsafe condition as jerky extension of the air brakes at very high air speeds, including cases where the air brake blades interlock. This AD requires replacing certain air brake end stop bushings, inspecting certain other air brake end stops, and repairing if necessary. The FAA is issuing this AD to address the unsafe condition on these products.

**DATES:** This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of certain publications listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** For service information identified in this final rule, contact Schempp-Hirth Flugzeugbau GmbH, Kребenstrasse 25, 73230 Kirchheim/Teck, Germany; phone: +49 7021 7298-0; fax: +49 7021 7298-199; email: [info@schempp-hirth.com](mailto:info@schempp-hirth.com); website: <https://www.schempp-hirth.com>. You may view this service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 901 Locust, Kansas City, MO 64106. For information on the availability of this material at the FAA, call (817)

222-5110. It is also available at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2021-0878.

### **Examining the AD Docket**

You may examine the AD docket at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2021-0878; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this final rule, the MCAI, any comments received, and other information. The address for Docket Operations is U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

**FOR FURTHER INFORMATION CONTACT:** Jim Rutherford, Aviation Safety Engineer, General Aviation & Rotorcraft Section, International Validation Branch, FAA, 901 Locust, Room 301, Kansas City, MO 64106; phone: (816) 329-4165; fax: (816) 329-4090; email: [jim.rutherford@faa.gov](mailto:jim.rutherford@faa.gov).

### **SUPPLEMENTARY INFORMATION:**

#### **Discussion**

The FAA issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply to certain serial-numbered (S/N) Schempp-Hirth Flugzeugbau GmbH Model Duo Discus and Duo Discus T gliders. The NPRM published in the *Federal Register* on October 21, 2021 (86 FR 58228). The NPRM was prompted by MCAI originated by the European Union Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Union. EASA issued AD 2020-0233, dated October 27, 2020 (referred to after this as “the MCAI”), to address the unsafe condition on certain S/N Schempp-Hirth Flugzeugbau GmbH Model Duo Discus, Duo Discus C, and Duo Discus T gliders. The MCAI states:

Occurrences were reported of experiencing jerky extension of the airbrakes at very high air speeds, in some cases of which the airbrake blades interlocked. An increasing number of age-related damage was observed on a specific version (22 mm plastic bushes) of the airbrake end-stops.

This condition, if not corrected, could lead to blockage of the airbrakes, possibly resulting in reduced control of the (powered) sailplane.

To address this potential unsafe condition, Schempp-Hirth issued the applicable [technical note] TN (original issue) to provide instructions to replace the affected parts with a new version bushing, made of better material.

Since [EASA planned AD] PAD 20-119 was issued, it was discovered that early s/n sailplanes were equipped with a single metal end stop per airbrake. The applicable TN was revised accordingly. The PAD was revised to include those metal end stops in the definition of ‘affected part’ to ensure these are inspected.

For the reasons described above, this [EASA] AD requires replacement of certain affected parts with serviceable parts. For other affected parts, this [EASA] AD requires a one-time inspection for sufficient overlap and, depending on findings, accomplishment of applicable corrective action(s). This [EASA] AD also prohibits (re)installation of affected parts.

You may examine the MCAI in the AD docket at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2021-0878.

## **Discussion of Final Airworthiness Directive**

### **Comments**

The FAA received no comments on the NPRM or on the determination of the costs.

### **Conclusion**

This product has been approved by the aviation authority of another country and is approved for operation in the United States. Pursuant to the FAA’s bilateral agreement with this State of Design Authority, it has notified the FAA of the unsafe condition described in the MCAI referenced above. The FAA reviewed the relevant data and determined that air safety requires adopting this AD as proposed. Accordingly, the FAA is issuing this AD to address the unsafe condition on these products. This AD is adopted as proposed in the NPRM.

## **Related Service Information under 1 CFR Part 51**

The FAA reviewed Schempp-Hirth Flugzeugbau GmbH Working Instructions for Technical Note 890-16 rev1 and Technical Note 396-20 rev1 action 1, dated September 18, 2020. The service information contains procedures for replacing each air brake end stop plastic bushing (22 mm) with an air brake end stop plastic bushing (32 mm). The FAA also reviewed Schempp-Hirth Flugzeugbau GmbH Working Instructions for Technical Note 396-20 rev1 action 2, dated September 18, 2020. The service information contains procedures for inspecting each single air brake metal end stop for overlap. This

service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

### **Differences Between this AD and the MCAI**

The MCAI applies to Schempp-Hirth Flugzeugbau GmbH Model Duo Discus C gliders, and this AD does not because this model does not have an FAA type certificate.

The MCAI allows credit for modifications done prior to the effective date of the EASA AD in accordance with the original issue of Schempp-Hirth TN 396-20 / TN 890-16, but this AD does not provide such credit.

The MCAI prohibits installation of air brake end stop plastic bushings (22 mm) after a glider has been modified with an air brake end stop plastic bushing (32 mm). This AD prohibits installation of air brake end stop plastic bushings (22 mm) as of the effective date of this AD.

### **Costs of Compliance**

The FAA estimates that this AD affects 27 gliders of U.S. registry.

The FAA estimates the following costs to comply with this AD:

#### **Estimated costs**

<b>Action</b>	<b>Labor Cost</b>	<b>Parts Cost</b>	<b>Cost per glider</b>	<b>Cost on U.S. operators</b>
Replace plastic end stop bushings	4 work-hours x \$85 per hour = \$340	\$150	\$490	Up to \$13,230 (depending on number of gliders with plastic end stop bushings)
Inspect metal end stops	1 work-hour x \$85 per hour = \$85	\$0	\$85	Up to \$2,295 (depending on number of gliders with metal end stops)

The FAA estimates the following costs to do any necessary repairs that would be required based on the results of the inspection. The FAA has no way of determining the number of gliders that might need these repairs:

### **On-condition costs**

<b>Action</b>	<b>Labor Cost</b>	<b>Parts Cost</b>	<b>Cost per glider</b>
Repair metal end stops	4 work-hours x \$85 per hour = \$340	\$150	\$490

### **Authority for This Rulemaking**

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: General requirements. Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

### **Regulatory Findings**

This AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this AD:

- (1) Is not a "significant regulatory action" under Executive Order 12866,
- (2) Will not affect intrastate aviation in Alaska, and
- (3) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

### **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

### **The Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

## **PART 39 - AIRWORTHINESS DIRECTIVES**

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

### **§ 39.13 [Amended]**

2. The FAA amends § 39.13 by adding the following new airworthiness directive:

**2021-26-25 Schempp-Hirth Flugzeugbau GmbH:** Amendment 39-21884; Docket No. FAA-2021-0878; Project Identifier MCAI-2020-01460-G.

#### **(a) Effective Date**

This airworthiness directive (AD) is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

#### **(b) Affected ADs**

None.

#### **(c) Applicability**

This AD applies to the Schempp-Hirth Flugzeugbau GmbH gliders identified in paragraphs (c)(1) and (2) of this AD, certificated in any category.

(1) Model Duo Discus gliders, serial number (S/N) 1 through 541 inclusive, except S/N 534.

(2) Model Duo Discus T gliders, S/N 1 through 174 inclusive.

#### **(d) Subject**

Joint Aircraft System Component (JASC) Code 2760, Drag Control System.

#### **(e) Unsafe Condition**

This AD was prompted by mandatory continuing airworthiness information (MCAI) originated by an aviation authority of another country to identify and correct an unsafe condition on an aviation product. The MCAI describes the unsafe condition as jerky extension of the air brakes at very high air speeds, including cases where the air brake blades interlock. The FAA is issuing this AD to prevent and correct damage of the airbrake end-stops. The unsafe condition, if not addressed, could result in blockage of the air brakes and reduced control of the glider.

#### **(f) Compliance**

Comply with this AD within the compliance times specified, unless already done.

**(g) Required Actions**

(1) For gliders with air brake end stop plastic bushings (22 mm) installed: Within 3 months after the effective date of this AD, replace each air brake end stop plastic bushing (22 mm) with an air brake end stop plastic bushing (32 mm) in accordance with Schempp-Hirth Flugzeugbau GmbH Working Instructions for Technical Note 890-16 rev1 and Technical Note 396-20 rev1 action 1, dated September 18, 2020.

(2) For gliders with single air brake metal end stops installed: Within 3 months after the effective date of this AD, inspect each single air brake metal end stop for overlap in accordance with Schempp-Hirth Flugzeugbau GmbH Working Instructions for Technical Note 396-20 rev1 action 2, dated September 18, 2020. If there is insufficient overlap, before further flight, repair using a method approved by the FAA or the European Union Aviation Safety Agency (EASA).

**(h) Parts Installation Provision**

As of the effective date of this AD, do not install an air brake end stop plastic bushing (22 mm) on any glider.

**(i) Alternative Methods of Compliance (AMOCs)**

(1) The Manager, International Validation Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the International Validation Branch, send it to the attention of the person identified in paragraph (j)(1) of this AD and email to: 9-AVS-AIR-730-AMOC@faa.gov.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

**(j) Related Information**

(1) For more information about this AD, contact Jim Rutherford, Aviation Safety Engineer, General Aviation & Rotorcraft Section, International Validation Branch, FAA, 901 Locust, Room 301, Kansas City, MO 64106; phone: (816) 329-4165; fax: (816) 329-4090; email: jim.rutherford@faa.gov.

(2) Refer to EASA 2020-0233, dated October 27, 2020, for more information.

You may examine the EASA AD in the AD docket at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2021-0878.

**(k) Material Incorporated by Reference**

(1) The Director of the Federal Register approved the incorporation by reference of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless the AD specifies otherwise.

(i) Schempp-Hirth Flugzeugbau GmbH Working Instructions for Technical Note 396-20 rev1 action 2, dated September 18, 2020.

Note 1 to paragraph (k)(2)(i): The service information listed in paragraphs (k)(2)(i) of this AD contains German to English translation. EASA used the English translation in referencing the document from Schempp-Hirth Flugzeugbau GmbH. For enforceability purposes, the FAA will cite the service information in English as it appears on the document

(ii) Schempp-Hirth Flugzeugbau GmbH Working Instructions for Technical Note 890-16 rev1 and Technical Note 396-20 rev1 action 1, dated September 18, 2020.

(3) For service information identified in this AD, contact Schempp-Hirth Flugzeugbau GmbH, Kребenstrasse 25, 73230 Kirchheim/Teck, Germany; phone: +49 7021 7298-0; fax: +49 7021 7298-199; email: [info@schempp-hirth.com](mailto:info@schempp-hirth.com); website: <https://www.schempp-hirth.com>.

(4) You may view this service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 901 Locust, Kansas City, MO 64106. For information on the availability of this material at the FAA, call (817) 222-5110.

(5) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, email: [fr.inspection@nara.gov](mailto:fr.inspection@nara.gov), or go to: <https://www.archives.gov/federal-register/cfr/ibr-locations.html>.



Issued on December 16, 2021.

Lance T. Gant, Director,  
Compliance & Airworthiness Division,  
Aircraft Certification Service.

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